PAG 462 nº 371

- $y^4 + 2ay^2 - 24a^2 = \boxed{(y^2+6a)(y^2-4a)}$

$S = 2a$
$P = -24a^2$ $\quad 6a \quad -4a$

- $x^6 + ax^3 - 6a^2 = \boxed{(x^3+3a)(x^3-2a)}$

$S = a$ $\quad 3a \quad -2a$
$P = -6a^2$

PAG 468 nº 493

$$\frac{1}{4}a^4b^6 - \frac{1}{3}a^2b^3 + \frac{1}{9} = \left(\frac{1}{2}a^2b^3 - \frac{1}{3}\right)^2$$

PAG. 468 nº 496

$$8a^3 - 6a^2b + \frac{3}{2}ab^2 - \frac{1}{8}b^3 = \boxed{\left(2a - \frac{1}{2}b\right)^3}$$

PAG 468 nº 501

$$2x^6 - x^5 + 2x^4 - x^3 = x^3(2x^3 - x^2 + 2x - 1) =$$
$$x^3[x^2(2x-1) + (2x-1)] = \boxed{x^3(2x-1)(x^2+1)}$$

PAG 468 nº 505

$$x^4 - 8x^2y^2 + 16y^4 = (x^2 - 4y^2)^2 = \boxed{(x-2y)^2(x+2y)^2}$$

PAG 468 nº 518

$$x^8 + 7x^4 - 8 = (x^4-1)(x^4+8) = (x^2-1)(x^2+1)(x^4+8) =$$

$S = 7$
$P = -8$ $\quad 8 \quad -1$

$$= \boxed{(x-1)(x+1)(x^2+1)(x^4+8)}$$

ΒΑΘ 470 Α' 555

$$\alpha^3 - 3\alpha + 2 = (\alpha-1)(\alpha^2+\alpha-2) = (\alpha-1)(\alpha-1)(\alpha+2) = \boxed{(\alpha-1)^2(\alpha+2)}$$

	1	0	−3	2
1		1	1	−2
	1	1	−2	//

→ $S=1$, $P=-2$ → $2, -1$

ΒΑΘ 472 Α' 580

- $\frac{1}{27} - 27t^3 = \boxed{\left(\frac{1}{3} - 3t\right)\left(\frac{1}{9} + 3t^2 + t\right)}$

- $8x^9 - 5^3 = \boxed{(2x^3 - 5)(4x^6 + 5^2 + 2x^3 5)}$

ΒΑΘ 474 Α' 613

$$30x^2y^2 - 2xy^3 - 4y^4 =$$

$$2y^2(15x^2 - xy - 2y^2) = 2y^2\left[15x^2 - 6yx + 5yx - 2y^2\right] =$$

$S = -y$, $P = -30y^2$ → $-6y, +5y$

$$= 2y^2\left[3x(5x-2y) + y(5x-2y)\right]$$

$$= \boxed{2y^2(5x-2y)(3x+y)}$$

ΒΑΘ 476 Α' 658

1ο ΤΡΟΠΟΣ

$$25x^2 - 10x + 1 = 0$$

$S = -10$, $P = +25$ → $-5, -5$

$$25x^2 - 5x - 5x + 1 = 0$$

$$5x(5x-1) - (5x-1) = 0$$

$$(5x-1)(5x-1) = 0$$

$5x - 1 = 0$ ή $5x - 1 = 0$ → $\boxed{x = \frac{1}{5}}$ ΔΙΠΛΗ ΡΙΖΑ 2

2ο ΤΡΟΠΟΣ

$$25x^2 - 10x + 1 = 0$$

$$(5x-1)^2 = 0$$

$$5x - 1 = 0$$

$$\boxed{x = \frac{1}{5}}$$

ΔΙΠΛΗ ΡΙΖΑ 2

Pag. 476 n° 667

$3x^3 + 6x^2 - 12x - 24 = 0$

$3(x^3 + 2x^2 - 4x - 8) = 0$

$3[x^2(x+2) - 4(x+2)] = 0$

$3(x^2 - 4)(x+2) = 0$

$3(x-2)(x+2)(x+2) = 0$

$3(x-2)(x+2)^2 = 0$

3 è SUPERFLUO

$x - 2 = 0 \quad x = 2$

$(x+2)^2 = 0 \rightarrow x + 2 = 0 \quad x = -2$ MOLTEPLICITÀ 2

Pag 476 n° 668

$(25x^2 - 9)(x+2) = 0$

$(5x - 3)(5x + 3)(x+2) = 0$

$5x - 3 = 0 \quad x = \frac{3}{5}$

$5x + 3 = 0 \quad x = -\frac{3}{5}$

$x + 2 = 0 \quad x = -2$

Pag 476 n° 670

$(x-4)^3(x-2)^2 = 0$

$(x-4)^3 = 0 \rightarrow x - 4 = 0 \quad x = 4$ MOLTEPLICITÀ 3

$(x-2)^2 = 0 \rightarrow x - 2 = 0 \quad x = 2$ MOLTEPLICITÀ 2

PAT 478 p° 673

$x^4 - 2x^3 - 8x^2 + 18x - 9 = 0$

	1	−2	−8	18	−9
1		1	−1	−9	9
	1	−1	−9	9	//

$(x-1)(x^3 - x^2 - 9x + 9) = 0$

$(x-1)[x^2(x-1) - 9(x-1)] = 0$

$(x-1)(x^2-9)(x-1) = 0 \quad (x-1)^2(x-3)(x+3) = 0$

$(x-1)^2 = 0$ $x = 1$ posibilități 2

$x - 3 = 0$ $x = 3$

$x + 3 = 0$ $x = -3$

PAT 478 p° 691

$5x^2 + 5x - 10 = 5(x^2 + x - 2) = 5(x+2)(x-1)$

$y - x^2y = y(1 - x^2) = y(1-x)(1+x) = -y(x-1)(1+x)$

$xy - y - 5x + 5 = y(x-1) - 5(x-1) = (y-5)(x-1)$

$CMMDC = x - 1$

$mcm = 5y(x-1)(x+1)(y-5)(x+2)$

Pag 478 n° 69c

$3a^3 - 12a^2 + 9a = 3a(a^2 - 4a + 3) = \boxed{3a(a-3)(a-1)}$

$a^3 - a^2 - 9a + 9 = a^2(a-1) - 9(a-1) = (a^2-9)(a-1) = \boxed{(a-3)(a+3)(a-1)}$

$2a^4 - 4a^3 + 2a^2 = 2a^2(a^2 - 2a + 1) = \boxed{2a^2(a-1)^2}$

$\boxed{MCD = a-1}$

$\boxed{mcm = 2a^2(a-3)(a-1)^2(a+3)}$

Pag. 482 n° 100

$b^2 - 7b + 6 = \boxed{(b-6)(b-1)}$

$ab - 2b + 4a - 8 = b(a-2) + 4(a-2) = \boxed{(b+4)(a-2)}$

$b^3 + 2b^2 - 7b + 4 = (b-1)(b^2 + 3b - 4) = \boxed{(b-1)(b+4)(b-1)}$

$\boxed{(b-1)^2(b+4)}$

	1	2	−7	+4
1		1	3	−4
	1	3	−4	=

$\boxed{MCD = 1}$

$\boxed{mcm = (b-6)(b-1)^2(b+4)(a-2)}$